Michigan Department of Transportation 5100B (01/07)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Matt Webb	88426	47013

DESCRIPTION IF NO JN/CS
US-23 Corridor Feasibility Study

MDOT PROJECT MANAGER: Check all items to be included in RFP.

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

☐ **TIER I ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☑ **TIER III (>$250,000)**	**CONSULTANT:** Provide only checked items below in proposal.
☐	☐	☑	Understanding of Service
☐	☐	☑	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☐	☑	Organization Chart
☐	☐	☑	Qualifications of Team
☐	☐	☑	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☑	Quality Assurance/Quality Control
☐	☐	☑	Location. The percentage of work performed in Michigan will be used on all contracts unless the contract is for on-site inspection, then location should be scored for the on-site inspection.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Requests for Proposals.**

RFP SPECIFIC INFORMATION

☐ BUREAU OF HIGHWAYS ☑ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☐ NO ☑ YES DATED 10/1/06 THROUGH 12/31/06

☑ **Prequalifed Services** – See page 1 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalifed Services** - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

** **For RFP's that originate in Bureau of Transportation Planning only**, a price proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The price proposal must be submitted in a sealed manila envelope, clearly marked in large red letters **"PRICE PROPOSAL – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. The price proposal will only be opened for the highest scoring proposal. Unopened price proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked in large red letters **"SEALED BID – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL DUE DATE	TIME DUE
8	3/14/07	4:00 PM

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Matt Webb, Project Studies and Justification Unit
Supervisor, webbma@michigan.gov
425 W. Ottawa. P.O. Box 30050
Lansing, MI 48933

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

Lansing Regular Mail	OR	Lansing Overnight Mail
☐ Secretary, Contract Services Div - B225 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Secretary, Contract Services Div - B225 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933
☑ Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100G – Certification of Availability of Key Personnel

(These forms are not included in the proposal maximum page count.)

US-23 Corridor Feasibility Study
Scope of Work

CONTROL SECTION: 47013
JOB NUMBER: 88426

Prequalification Classification: Project Development Studies
DBE Requirement: 0%

MDOT Project Manager

MDOT will be using a joint project manager structure to manage this project. These two individuals will provide oversight over the day to day activities, all deliverables, communications, and Vendor management.

Project Managers:
Matt Webb
Project Studies and Justification Unit Supervisor
425 W. Ottawa Street
P.O. Box 30050
Lansing, MI 48909
e-mail: webbma@michigan.gov

Kari Andrewes
University Region Planner
4701W. Michigan Avenue
Jackson, MI 49201
e-mail: andrewesk@michigan.gov

I. PROJECT LOCATION

The project is located along the US-23 corridor from M-14 to I-96 in Washtenaw and Livingston Counties. The study area includes all interchanges located along the 17-mile corridor and the adjacent non-trunkline road network a ¼ mile on each side of the corridor. Also included in the study area are portions of I-96 from the Spencer Road interchange to the Pleasant Valley interchange in order to accurately capture the potential impacts and improvement options available for the US-23/I-96 system to system interchange.

The study area for this feasibility study shall consist of the following:

Study Area: US-23 from M-14 (eastern tri-level interchange) in Washtenaw County to I-96 in Livingston County (see **Attachment 1.0**).

Trafficshed/Transit Analysis Study Area: A trafficshed and transit connections study area will also be analyzed along US-23 from the eastern M-14 tri-level structure southerly to I-94 and westerly along M-14 to I-94. The purpose of this trafficshed/transit analysis study area is to assess the potential downstream traffic and transit operational impacts heading into and out of the US-23 study area. The transit analysis will also seek to identify the possible logical regional transit termini and connections to assure no bottlenecks exist immediately downstream along the US-23 corridor that would ultimately impact the operation and efficiency of such a service.

II. PROJECT DESCRIPTION

The US-23 corridor between Brighton and Ann Arbor is a rapidly developing corridor. Traffic volumes and resulting delays have increased substantially over the last ten years. Additionally the condition of the corridor will require major rehabilitation work be completed on the road and several bridges within the next 10 years. Realizing these pending needs, MDOT initiated the US-23 Improvement Study in 2002. In April 2003, this Environmental Assessment (EA) was deferred as part of Governor Jennifer Granholm's Preserve First Initiative. URS, the selected vendor for the EA stopped work at the Illustrative Alternatives development phase of the EA. Since the deferral, several improvement projects driven by local development have been completed or proposed at the following interchanges along the corridor:

- US-23/Lee Road – Three roundabouts have been constructed, including a double roundabout at the southbound ramp termini/Lee Road/Whitmore Lake Road intersection.
- US-23/Silver Lake Road – Ramp termini and associated local road improvements are planned for 2007/2008.
- US-23/North Territorial Road - Northfield Township and developers are still evaluating proposed improvements.

The purpose of this corridor planning/feasibility study will be to develop a long-range master plan for the US-23 corridor that can be used to guide near-term investment decisions relating to preservation needs and future public and possible private development proposals. This study will also be used to identify segments of independent utility MDOT could implement as future phasing opportunities for US-23 capacity increase and multi-modal access improvements.

The feasibility study will also provide an assessment of the feasibility of adding dedicated transit facilities both within the existing ROW limits as well as adjacent to the corridor along the existing Great Lakes Central Railway. This assessment shall develop and consider innovative alternatives such as allowing buses to utilize shoulders.

Finally, this study will provide an assessment of possible innovative financing techniques and methods to implement identified improvements. At a minimum the department and study stakeholders would like an assessment of the feasibility of implementing private-public partnerships, and other innovative funding sources along this corridor.

The benefits of completing this feasibility study are it provides MDOT with:

1. a detailed inventory of existing physical conditions, existing traffic conditions, and future (2030) traffic conditions so these can be compared against alternative development Traffic Impact Statement's,
2. an overarching master plan to assist in coordinating future studies, and improvements proposed by private developers and others along the corridor,
3. a plan to address short and long-term preservation needs along the corridor, and
4. a plan to develop logical segments of independent utility so that smaller more manageable projects (i.e., CE/EA) along the corridor can be cleared environmentally as opposed to trying to fiscally constrain improvements along the entire corridor within one environmental document (i.e., EA/EIS).

Anticipated Study Steering/Advisory Committee:
The department anticipates the following agencies will be stakeholders and active participants in this feasibility study:

- MDOT (Region, TSC, BTP)
- FHWA
- Washtenaw County Road Commission
- Livingston County Road Commission
- SEMCOG
- WATS
- AATA
- LETS
- Representatives from each community along the US-23 corridor (US-23 coalition)

Other Studies/Activities: The following is a listing of recently completed or on-going transportation studies/development proposals which are affecting the operations of the US-23 corridor:

1. US-23/Lee Road Interchange Improvements (Roundabouts at ramp termini were added in 2005/2006)
2. US-23/Silver Lake Road Interchange Improvements (improvements at the ramp termini are being evaluated as part of a proposed adjacent development)
3. US-23/North Territorial Road Interchange Environmental Assessment (improvement at the ramp termini and possibly a new Territorial Road bridge are being evaluated as part of proposed adjacent developments)
4. US-23 Improvement Study Environmental Assessment (Deferred in 2003)
5. I-96/US-23 Value Planning Study (completed in August 2001)
6. Washtenaw County Freeway Study (completed in 1999)
7. Ann Arbor Northeast Area Transportation Plan
8. Ann Arbor Non-motorized Plan
9. Ann Arbor's A2D2 Study
10. AATA Transit System Development Report
11. Ann Arbor Model for Mobility
12. WATS Western Washtenaw Transit Study
13. WATS Non-motorized Plan
14. Get Downtown Travel Inventory

Work Completed To Date: The following is a listing of partial/full activities which were completed as part of the deferred US-23 Environmental Assessment:

1. Aerial mapping of the corridor
2. Existing (2002) and Future (2025) Traffic Projections
3. Conceptual Illustrative Alternatives developed
4. Partial environmental constraints mapping developed

Proposed Work Scope:
The work necessary to complete this feasibility study will be accomplished using a Vendor/MDOT team approach. The following sections describe the elements that will be completed by MDOT and the sections envisioned by the selected Vendor.

The following scope of work items will be completed by MDOT:

1. Update existing conditions inventory

2. Update existing traffic conditions

3. Develop updated future 2030 traffic projections

4. Identify corridor deficiencies (operational, safety, right-of-way and capacity)

5. Identify interchange deficiencies

6. Identify corridor preservation (road & bridge) needs

7. Identify corridor ITS needs

8. Develop a preliminary environmental scoping issues document. (*Note: This analysis shall also include a preliminary analysis of secondary and cumulative impacts of proposed alternatives).*

9. Develop preliminary highway improvement alternatives to address near and long-term needs with in the corridor. (*Note: MDOT will incorporate the multi-modal alternatives developed within the Vendor's scope of work into the overall assessment of alternatives considered for the corridor*).

10. Develop possible logical segments of termini along the corridor for approval by FHWA

11. Develop a document which summarizes existing funding needs and provide an overview of traditional and innovative funding mechanisms that have been utilized within the state.

12. Develop preliminary cost estimates for each segment of independent utility

13. Coordinate and oversee monthly progress meetings, bi-monthly advisory committee meetings (12) with local stakeholders meetings and public involvement meetings.

Vendor Scope of Work:
The following tasks shall be completed by a Vendor in coordination with the aforementioned MDOT deliverables:

Capacity Analysis: The Vendor will provide baseline and future capacity analyses for a maximum of six interchanges/intersections/weaving sections. The remaining locations will be completed by the department. The final location of the analyses to be performed by the Vendor will be determined by the department and at a minimum will likely include the following: the I-96/US-23 interchange and the adjacent weaving sections of US-23 between the east and west junction of M-14.

Deliverables:
- Hard and electronic copies of the Vendor's HCM capacity analysis.

Microsimulation Model: Develop a corridor Paramics-based microsimulation model. The US-23 model will include key surface roads that fall in the influence area of the primary US-23 corridor study area, (M-14 to I-96). In addition to the road network, public transportation routes and associated facilities should also be included in the model.

The model shall utilize both the trip tables contained within the Southeast Michigan Council of Governments (SEMCOG) and Washtenaw Area Transportation Study (WATS) travel demand models to determine matrix estimation, assignment, and validation. Four vehicle fleets shall be separately modeled: passenger vehicles, trucks, public transportation, and HOV drivers.

The model will include an evaluation of both AM (6:00 – 9:00) and PM Peak Hour (3:00 – 6:00) for the following time periods:

- Existing 2006 Conditions - No Build
- Existing 2006 Conditions – Minor interchange geometric modifications/improvements (i.e., lengthen ramp acceleration and deceleration lanes, adding auxiliary and weave lanes, modifying interchange access, etc.)
- 2015 Future No Build
- 2015 Future Preferred Corridor Alternatives (it is anticipated that the Vendor will evaluate up to three different development scenarios)

Data Collection Plan: At the onset of the project, the Vendor shall provide MDOT with a prioritized list of required traffic data which will be needed for model development and calibration efforts. The Department will assess this prioritized list and will determine how best to collect the necessary traffic counts, and any speed study data.

Calibration Expectations: The base network shall accurately represent the existing freeway system. For the base year, traffic volumes on each link shall be within $^{+}$/- 10 % of existing ground counts and/or Sufficiency Guide volumes as determined by the study team. At the conclusion of the study, the Vendor shall prepare a model validation report. The model validation report will document methods and results associated with 1) error checking, 2) calibration of capacity, 3) calibration of volume, and 4) to the greatest extent possible calibration of operational performance including travel time, queue lengths, and durations.

Technical Report: The Vendor shall develop a summary report which will provide a narrative of results as well as quantitative measures of effectiveness. The technical report will provide MDOT with all documentation associated in developing, maintaining, updating and running the US-23 Feasibility model. The technical report will also include a narrative on the lessons learned throughout the development of the simulation.

The US-23 corridor microsimulation model shall be developed consistent with the methodology used in the department's Southeast Michigan Freeway Microsimulation model (METSIM) as the work performed for this contract will have ongoing utility to MDOT.

Deliverables:

- Draft and final technical reports which summarize the development of the model
- All Paramics based files and any accompanying data or analysis in an electronic format acceptable to the department

Managed-lanes and Toll-finance Assessment: The Vendor shall assess the feasibility of alternatives to unrestricted general-purpose lanes on this segment of US-23, as a means of reducing person-hours traveled and increasing average travel speed. These alternatives shall include at least:

- High-occupancy-vehicle (HOV) lanes
- High-occupancy/toll (HOT) lanes
- Toll express lanes (no HOV exemption)
- Transit/Rail alternatives

The feasibility study is to be based on current federal law authorizing congestion pricing and toll finance of new capacity. Lack of state law authorizing tolls and restricted lanes is not to be considered an impediment. Toll express or HOT lane alternatives are to assume cashless toll collection by transponder or recognition of license plates at free-flow speed. All alternatives involving tolls are to assume congestion pricing so that flow never breaks down in managed lanes, and that express bus service will operate in the managed lanes.

In addition to the managed-lane alternatives listed above, the vendor shall also assess the feasibility of applying congestion-priced tolls to 100 per cent of traffic, with cash toll booths or license-plate recognition for non-local users. The vendor shall estimate the contribution by tolls to project finance under at least these alternatives:

- Revenue bonds issued by MDOT
- Public-private partnerships of any kind
- Private equity or long-term concessions

and other alternatives that may appear reasonable. This assessment is of general feasibility only, and need not be accurate enough to inform potential investors.

Deliverables:

- Draft and final technical reports which addresses the aforementioned items
- Analysis and reports in an electronic format acceptable to the department

Multi-modal Feasibility Technical Report: The Vendor shall develop preliminary multi-modal improvement alternatives including an assessment of transit facilities along the corridor including but not limited to a dedicated transit lane, running local transit buses along the shoulders of US-23, expanding intercity bus and regional commuter programs, expanding non-motorized opportunities, rail alternatives along the Great Lakes Central Railway, and the identification of park and ride rail stations. This assessment shall examine issues and impediments that must be addressed if transit and/or rail service is to be implemented in the US-23 corridor from Brighton/Livingston County to Ann Arbor. At a minimum the following work tasks are envisioned:

a. Review previous studies and initiatives proposed for the corridor
b. Review physical and operational characteristics of the corridor's infrastructure
c. Identify existing impediments
d. Identify physical and operational needs to extend transit and/or rail service through the corridor including the preliminary identification of car-pool/van-pool lots needed to support such services
e. Identify fatal flaws, major challenges and key constraints
f. Assess ITS opportunities related to transit operations
g. Working with local transit providers and other possible operational providers develop ridership estimates and market profiles
h. Develop feasible recommendations
i. Develop preliminary cost estimates

Prepare a draft and final technical report which will summarize the multi-modal issues. The findings of the report will be incorporated into the Final US-23 Feasibility Study.

Deliverables:

- Draft and final technical reports which addresses the multi-modal items
- Analysis and reports in an electronic format acceptable to the department

Visualization: The vendor shall develop visualization materials to represent specific elements of corridor alternatives/improvements. A component of the visualization task will include public engagement activities to gain an understanding of public/stakeholder issues/concerns regarding community preferences, visual quality, and the look and fit of the US-23 corridor.

Deliverables:

- Public/stakeholder visualization workshops (minimum 3)
- Visual representation of selected interchange(s) (minimum 1-3)
- Visual representation of integrated transportation along corridor such as bus on shoulder, rail infrastructure and/or dedicated transit lanes
- 3-D computer simulation/representation of traffic flow of a modernized interchange/corridor
- Analysis and reports in an electronic format acceptable to the department

Exhibit Preparation/Stakeholder Facilitation: The Vendor shall assist the department in facilitating the stakeholder advisory committee and public meetings. The Vendor shall also assist MDOT in the preparation of necessary exhibits, attend all meetings as directed by the department's project manager and prepare necessary meeting minutes and other meeting documents. At a minimum it is envisioned the consultant shall attend regular monthly advisory committee meetings and up to 2 public information meetings.

Deliverables:

- Public Information and Stakeholder exhibits
- Preparation and distribution of all meeting minutes

Monthly Progress Report: On the first of each month, the Vendor Project Manager shall submit a monthly project progress report to Matt Webb/Kari Andrewes, Project Managers. The monthly progress report shall follow the format agreed to by the Vendor and the Project Manager.

Schedule: MDOT anticipates that a final feasibility report will be completed within 24 months of initiation. The Vendor elements of this study are anticipated to be completed within 15-18 months accordingly.

Deferred EA Data:

Requests to review information prepared as part of MDOT's prior deferred US-23 Environmental Assessment shall be made in writing to the project manager. No formal report was submitted therefore data is not in one consolidated location. The requested data will be made available as soon as possible following receipt of questions.

Payment Schedule:

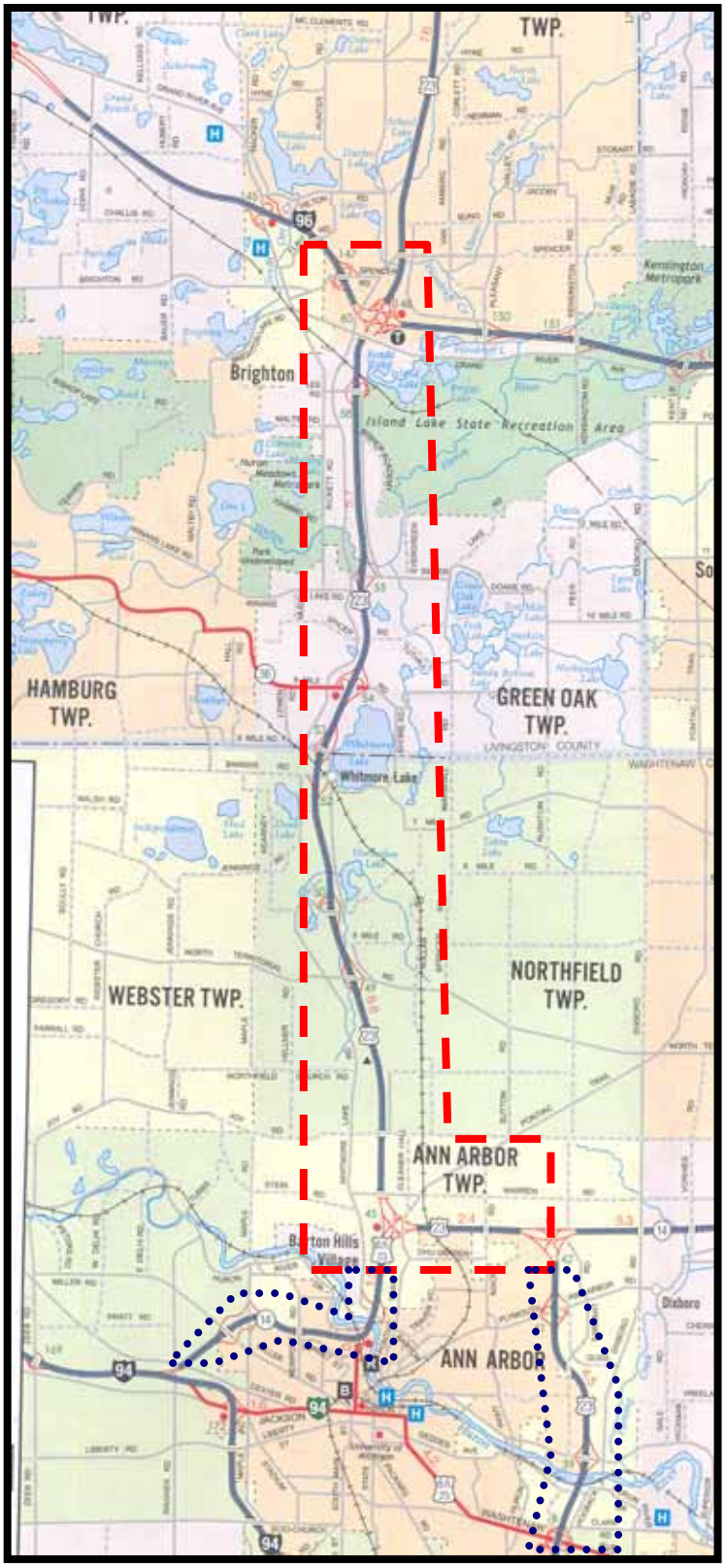
Compensation for this Scope of Services shall be on an Actual Cost plus Fixed Fee Basis. The VENDOR will not be reimbursed for costs associated with correcting errors or omissions by the VENDOR.

All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

The maximum fixed fee allowed for this project is 11.0%

Attachment 1.0

US-23 Feasibility Study Area Map



US-23 Corridor Study Area:

Study area includes:

- ~ 17 miles of mainline freeway
- 8 local access interchanges
- 3 system to system interchanges (I-96 & M-14)

Trafficshed and Transit Analysis Study Area shall extend to:

- West of M-14/Miller Road Interchange
- US-23 south of M-14 to north of I-94, including the interchanges with Plymouth Road, Geddes Road, and Washtenaw Road.

Study Area

Trafficshed and Transit Connections Analysis Study Area